

## CAS/STN FILE 'REGISTRY' ENTERED AT 14:22:10 ON 03 MAR 2005

L1 2 S (METHYLSILANE/CN OR "METHYLSILANE (H3SIME)"/CN OR "METHYLSILANE ANION"/CN)  
 L2 1 S "METHYLSILANE HOMOPOLYMER"/CN  
 L3 19 S N.W/ELF OR N W/MF OR (COPPER OR ALUMINUM OR IRON OR BORON OR GALLIUM OR INDIUM OR  
 TANTALUM OR MOLYBDENUM OR TUNGSTEN OR CHROMIUM OR VANADIUM OR NIOBIUM OR TITANIUM  
 OR NICKEL OR IRIIDIUM OR RHENIUM)/CN  
 L4 150 S N.W/MF OR N W/ELF

## FILE 'HCAPLUS' ENTERED AT 14:28:03 ON 03 MAR 2005

L6 88 S (L1 OR L2) AND ((L3 OR L4) OR CONDUCTIVE (2A) (MATERIAL OR COMPOUND))  
 L7 4 S (L1 OR L2) (L) EXPOS#####  
 L8 68 S (L1 OR L2) (L) GAS  
 L9 79 S (L1 OR L2) (L) VAPOR  
 L10 0 S (L1 OR L2) (L) VAPOUR  
 L11 78 S (L1 OR L2) (L) PLASMA  
 L12 27 S (L1 OR L2) (L) COAT#####  
 L13 135 S (L1 OR L2) (L) DEPOSIT#####  
 L14 4 S (L1 OR L2) (L) PASSIVAT#####  
 L15 1 S (L1 OR L2) AND NONOXIDI?  
 L16 1 S (L1 OR L2) AND NON OXIDI?  
 L17 9 S (L1 OR L2) AND PASSIVAT#####  
 L18 11 S (L14 OR L15 OR L16 OR L17)  
 L19 44 S L6 AND (L7 OR L8 OR L9 OR L10 OR L11 OR L12 OR L13)  
 L20 3 S L18 AND L19  
 L21 0 S L7 AND L19  
 L22 45 S L6 AND (L7 OR L8 OR L9 OR L10 OR L11 OR  
 L12 OR L13 OR L14 OR L15 OR L16 OR L17 OR L18 OR L19 OR L20 OR L21)  
 L23 42 S L22 NOT L20  
 L24 32 S L23 AND 1999-2005/PRY  
 L25 4 S L23 AND 1992-1998/PRY  
 L26 5 S L23 NOT P/DT  
 L27 4 S L26 AND 1999-2005/PY  
 L28 1 S L26 NOT L27  
 L29 38 S L23 NOT L27  
 L30 6 S L29 NOT L24  
 L31 8 S L25 OR L28 OR L30  
 L32 20095 S (METAL##### OR CONDUCT#####) (W) SUBSTRATE  
 L33 3 S (L1 OR L2) AND L32  
 L34 0 S L4 AND (L1 OR L2)

AB The metal, alloy, and/or ceramic powder layers on a compatible substrate are applied with the use of a preceramic polymer binder to obtain intermediate layers of a composite or cermet, with the polymer pyrolyzed in sintering to obtain a ceramic binder. The shrinkage of the composite or cermet interlayer with a functional gradient is controlled by adjusting the content of preceramic polymer binder. The **preceramic binder** is typically a poly (methylsilane), polycarbosilane, or a similar polymer with Al, B, Ti, or Zr. The process is suitable for applying Cu-SiC layer on Cu strip surface using the polycarbosilane precursor for Nicalon ceramic binder, and applying the 1st layer of Cu powder and then the 2nd layer of SiC powder with 10 mol% binder in each layer, followed by controlled firing under Ar atmospheric for bonding and sintering.

L133 ANSWER 13 OF 19 HCAPLUS COPYRIGHT ACS on STN

AN 1992:576384 HCAPLUS <DN 117:176384

ED Entered STN: 01 Nov 1992

TI **Deposition of tungsten films** from mixtures of tungsten hexafluoride, organohydrosilanes, and hydrogen

IN Roberts, David Allen; Garg, Diwakar; Lagendijk, Andre; Hochberg, Arthur Kenneth; Fine, Stephen Mark

PA Air Products and Chemicals, Inc., USA

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 486927	A1	19920527	EP 1991-119282	19911112
	CA 2055422	AA	19920521	CA 1991-2055422	19911113
	JP 06256951	A2	19940913	JP 1991-331378	19911120
	US 5433975	A	19950718	US 1993-116178	19930902
PRAI	US 1990-616288	A	19901120		

OS MARPAT 117:176384

AB **W films** are chemical-vapor deposited on heated substrates by using H flow and simultaneously introducing a WF6-organohydroxysilane mixture. The W films having a low elec. resistance and being essentially free of C, Si, and O are useful in the manufacture of integrated elec. circuits. Thus, **W was deposited on a Si wafer by reduction of WF6 at 230°**. The flow rate of WF6, H2, diethylsilane, and Ar was 25, 300, 20, and 9000 cm3/min, resp. **After 15 min, the W film was 340 Å thick**. Under similar deposition conditions without the use of diethylsilane, the W film thickness was <150 Å.

IT Vapor deposition processes

(chemical, with tungsten, by reduction of tungsten hexafluoride by hydrogen and organohydroxysilanes)

IT 992-94-9, **Methylsilane**

(reduction by hydrogen and, of tungsten hexafluoride, for chemical vapor deposition of tungsten films)

#### SEARCH HISTORY

FILE 'REGISTRY' ENTERED AT 13:27:31 ON 04 MAR 2005

L124	1	SEA	ABB=ON	PLU=ON	METHYLSILANE/CN
L126	227	SEA	ABB=ON	PLU=ON	TUNGSTEN/CN OR W/MF
L127	577	SEA	ABB=ON	PLU=ON	N.W/MF OR N W/ELF OR TUNGSTEN NITRIDE
L128	51	SEA	ABB=ON	PLU=ON	AL/MF OR ALUMINUM/CN

FILE 'HCAPLUS' ENTERED AT 13:30:53 ON 04 MAR 2005

L129	3361	SEA	ABB=ON	PLU=ON	L124 OR METHYLSILANE OR METHYL SILANE OR Silylmethane OR Silyl Methane OR Silaethane OR Monosilylmethane
L130	63	SEA	ABB=ON	PLU=ON	(L126 OR L127 OR L128) AND L129
L131	29920	SEA	ABB=ON	PLU=ON	(L126 OR L127 OR L128) (L) (PLATE OR SLAB OR SUPPORT OR BASE OR SUBSTRATE OR SHEET OR WIRE OR WIRING)
L132	8	SEA	ABB=ON	PLU=ON	L130 AND L131
L133	19	SEA	ABB=ON	PLU=ON	METHYLSILANE (6A) (TUNGSTEN OR ALUMINUM OR AL OR WN OR (TUNGSTEN OR W) (W) NITRIDE OR (ELEMENTAL OR METAL####) (1A) W)

-----Original Message-----

From: Diaz, Jose